

Case Study: Centre Hospitalier de L'Université de Montréal (CHUM)

Creating an Enduring Super Hospital in Montreal

FORTE
OPENING SOLUTIONS



Door Solutions in Healthcare

INDUSTRY

Healthcare

LOCATION

Montréal, Québec, Canada

PROJECT PARTNERSCannon Design
NEUF architect(e)s

Collectif Santé Montréal (CSM) – Joint venture between Obrascon Huarte Lain (OHL) (Spain) and Laing O'Rourke (London)

About CHUM

The University of Montreal Hospital Center (Centre Hospitalier De L'Université De Montréal, or "CHUM") is a 3 million-square-foot medical center in Montreal, Québec, Canada. Construction began in December of 2013 and the hospital opened in September 2017. The CHUM is the largest super hospital of its kind in North America. It's a consolidation of three of Montréal's oldest hospitals: Hotel-Dieu de Montréal, Notre-Dame, and Saint-Luc.

The facility is three interconnected buildings sitting on two and a half city blocks in downtown Montréal. The clinical part of the medical center is over 1,200 rooms in total, including: 442 exam rooms, 772 single-patient rooms, 39 operating rooms, and 40 specialty outpatient clinics.

The hospital can serve 345,000 ambulatory patients, 22,000 inpatients and 65,000 emergency patients every year. The organization employs over 10,000 clinicians and staff, plus 6,000 medical students and interns.

**Project Background**

Powering CHUM Hospital's Massive Renovation

Centre hospitalier de l'Université de Montréal (CHUM) is the largest hospital of its kind in North America. The hospital complex renovation unified three pre-existing hospitals and required over 6,000 wood doors that would meet safety, health and environmental requirements.

Forte Opening Solutions (Baillargeon®) provided a range of models and options for the project architect to choose from that would deliver guaranteed field performance ratings and meet the architect's performance criteria and specifications for the CHUM project.

Forte Opening Solutions Supplied:

- 90-Minute Fire-Rated Heavy-Duty Doors with Veneer Edge
- 45-Minute Fire-Rated Heavy-Duty Agrifiber® Doors with Veneer Edge
- Laminated Strand Lumber (LSL) Core Extra Heavy-Duty Doors for intensive use
- Particleboard Core Extra Heavy-Duty Doors
- Radiation Shielded (lead-lined), Extra Heavy-Duty Doors for radiology exam rooms

The Challenge

Supplying 6,000 Wood Doors in Just 24 Months

The project's door supplier, LMT group ("LMT"), realized the wood door manufacturer would need to produce and deliver more than 6,000 wood doors for the project over a 24-month period.

To put that in perspective, over the course of a typical 2,000-hour Canadian work year, an average of 1.5 wood doors had to be constructed, finished, machined for hardware, and inspected every working hour for two years straight to meet the demand.

The Solution

Baillargeon® by Forte Opening Solutions

LMT knew that few door manufacturers had the capacity to meet such high demands to not only complete the project on time, but provide high-quality, durable and beautiful wood doors.

LMT selected Baillargeon by Forte Opening Solutions ("Baillargeon") as the best choice to meet and exceed all the needs of the client, the project and the patients it would serve.



We are very proud to have been selected as a partner in this project. Knowing that our work has played a role in helping patients heal better and faster is core to our purpose at Forte.”

Normand Deschenes
Regional Sales Manager,
Baillargeon

The Result

Consistency, Performance, and Precision— Delivered Door by Door

To deliver on the large number of doors for the project, Baillargeon spread the door production across a network of plants.

Through a meticulous quality control process, the client received harmonized wood species, cuts, and finishes for every single door to achieve a consistent look throughout the award-winning hospital.

Additionally, the architect specified the veneer leaf assembly as a book match with a quarter-sliced cut, and the design called for a custom flush moulding to be designed specifically for this project.

Many of the doors required complex, pre-machining for the door hardware. The door edges would get stainless-steel edge protection flush to the door edges. Doors equipped with controlled access required a clear internal pathway through the door panels to accommodate electric strike wiring.

The project followed performance-based door specifications, in which the architect defined performance criteria and provided detailed requirements. Baillargeon was responsible for ensuring the hospital's doors met or exceeded expected performance standards.

To meet the project's various conditions, Baillargeon provided a range of models and options including:

- 5090-VE – 90-Minute Fire-Rated Heavy-Duty Doors with Veneer Edge
- AF45-VE – 45-Minute Fire-Rated Heavy-Duty Agrifiber® Doors with Veneer Edge
- 6000-ME – Laminated Strand Lumber (LSL) Core Extra Heavy-Duty Door for intensive use
- 8300-ME – Particleboard Core Extra Heavy-Duty Door
- 8512-ME and 8516-ME – Radiation Shielded (lead-lined), Extra Heavy-Duty Doors for radiology exam rooms